

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number
WO 2005/106047 A2

(51) International Patent Classification⁷: C12Q 1/70

(21) International Application Number:
PCT/US2004/040872

(22) International Filing Date: 6 December 2004 (06.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/527,209 4 December 2003 (04.12.2003) US

(71) Applicant (for all designated States except US): **RE-
GENTS OF THE UNIVERSITY OF CALIFORNIA**
[US/US]; 1111 Franklin Street, Oakland, CA 94607-5200
(US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GROVES, John,
T.** [US/US]; 750 North Shoreline Blvd., #144, Mountain
View, CA 94043 (US). **BAKSH, Michael, M.** [US/US];
180 Jacaranda Drive, Fremont, CA 94539 (US). **JAROS,
Michal** [CZ/CZ]; Dobrovskecho 78, 61200 Brno (CZ).

(74) Agent: **HART, Daniel**; Knobbe, Martens, Olson & Bear,
LLP, 2040 Main Street, 14th Floor, Irvine, CA 92614 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

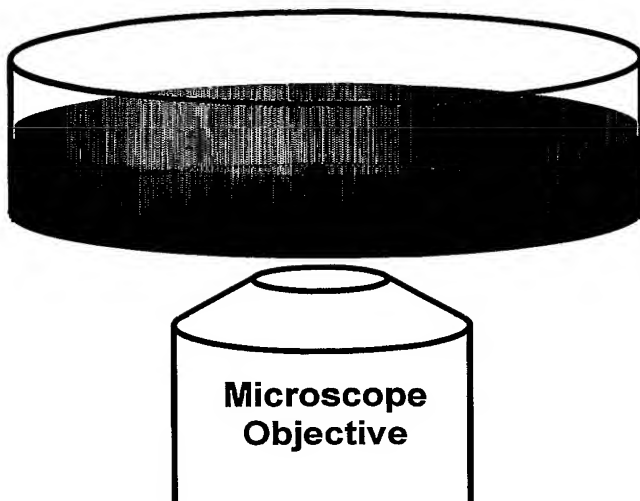
— of inventorship (Rule 4.17(iv)) for US only

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DETECTION OF MOLECULAR INTERACTIONS



(57) Abstract: A method and assay are described for measuring the interaction between a ligand and an analyte. The assay can include a suspension of colloidal particles that are associated with a ligand of interest. The colloidal particles are maintained in the suspension at or near a phase transition state from a condensed phase to a dispersed phase. An analyte to be tested is then added to the suspension. If the analyte binds to the ligand, a phase change occurs to indicate that the binding was successful.

WO 2005/106047 A2